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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,475	12/07/2000	Michael Wray	B-4054 618410-3	2456

7590

01/25/2005

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FORT COLLINS, CO 80527-2400

EXAMINER
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NALVEN, ANDREW L

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/733,475	WRAY, MICHAEL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Andrew L Nalven	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/26/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/19/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-9 are pending.
2. Amendment submitted 26 August 2004 has been received and entered.

### ***Response to Arguments***

3. Applicant's arguments filed 26 August 2004 have been fully considered but they are not persuasive.
4. Applicant has argued on pages 9 and 10 that the Redlich reference (US Patent No. 6,591,306) fails to teach, "each PDU having a message-type field by which the security entity in the intermediate system can determine whether a PDU it receives encapsulates a PDU to be extracted and sent on." Examiner respectfully disagrees and contends that Redlich does in fact teach the above-cited limitation. Redlich teaches each PDU having a message-type field by which the security entity in the intermediate system can determine whether a PDU it receives encapsulates a PDU to be extracted and sent on (Redlich, column 21 lines 22-33, column 25 lines 27-32, column 26 lines 6-12, column 28 lines 19-35, port number). Redlich's message-type field is the PDU's port number that is used to determine where a PDU should be routed. The PDU's port number identifies the guest that corresponds to a particular packet (Redlich, column 28 lines 19-35) and is used when extracting packets to be sent on (Redlich, column 26 lines 6-12).

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5. Applicant has further argued against the motivation for combining Redlich and Kirby for the rejection of claim 2 (see paragraphs 7-8 of office action mailed 5/26/04). Applicant has submitted that Redlich contemplates a single security session with a single tunnel connection and thus Examiner's motivation for combining the references is not applicable. Examiner respectfully disagrees. Redlich does contemplate multiple tunnels being available (Redlich, column 24 lines 53-57, column 25 lines 15-18).
6. Applicant has further argued against the combination of Redlich and Subramaniam on page 11. Examiner contends that the combination provides an advantage and thus would have been obvious to one of ordinary skill in the art. The combination of Redlich and Subramaniam offers the advantage of providing secure access to a secure intranet (Subramaniam, column 3 lines 11-18) through a broker that is versatile depending on the security needs of the local application entity (Subramaniam, column 3 line 52 – column 4 line 4). Subramaniam's system provides a more versatile system and thus provides an advantage over Redlich's system.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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8. Claims 1 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Redlich US Patent No 6,591,306.

9. With regards to claim 1, Redlich discloses a system for IP network access for portable devices in which he teaches a transport entity for providing transport services (Redlich, column 25 lines 3-7 and lines 29-31), a security entity logically positioned above the transport entity and operative to set up secure communications sessions with peer security entities in other systems for the passing of application messages in PDU's (Redlich, column 25 lines 54-59), the security entity including a tunneling mechanism for establishing a tunnel through an access-controlling intermediate system whereby to enable the local application entity to exchange application messages securely with a remote application entity on another system reachable via the intermediate system (Redlich, Figures 9 and 11, column 25 lines 19-42, column 26 lines 1-11), the tunneling mechanism establishing this tunnel by first setting up a first security session with the intermediate system and then a nested second security session with another system with PDUs associated with the second session being encapsulated within PDUs associated with the first session (Redlich, column 25 line 54 column 26 line 11) and being extracted by the intermediate system for sending to another system (Redlich, column 21 lines 42-57), and each PDU having a message-type field by which the security entity in the intermediate system can determine whether a PDU it receives encapsulates a PDU to be extracted and sent on (Redlich, column 21 lines 22-33, column 25 lines 27-32, column 26 lines 6-12, column 28 lines 19-35, port number).

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10. With regards to claim 9, Redlich teaches the local entity establishing first and second secure communication sessions respectively with the intermediate system (Redlich, column 25 lines 27-42, column 25 line 54 column 26 line 11) and the remote system with protocol data units, PDUs, associated with the second secure session being encapsulated within PDUs associated with the first secure session (Redlich, column 27 lines 1-10, data packets into PPP packets, PPP packets into GRE packets), each PDU including a type indicator (Redlich, column 28 lines 19-23, port number), and an intermediate system using said type indicator to determine whether a PDU it receives encapsulates a PDU associated with the second secure session and therefore to be sent on to the remote system (Redlich, column 28 lines 19-35).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Redlich Patent No 6,591,306 in view of Kirby et al US Patent No 5,898,784.

13. With regards to claim 2, Redlich, as described above fails to teach the destination address being modifiable. Kirby teaches each PDU having a destination address that is modifiable without invalidating any security processing applied specifically to that PDU whereby the intermediate system can redirect PDUs that are

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indicated by the message type of an encapsulating PDU as intended for sending on (Kirby, column 6 lines 17-25). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Kirby's method of modifying destination addresses because it offers the advantage of allowing the routing of packets to the correct destination system depending on the tunnel over which it was sent (Kirby, column 2 lines 51-55).

14. Claims 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redlich US Patent No 6,591,306 in view of Subramaniam et al US Patent No 6,081,900.

15. With regards to claims 3, Redlich as described above, fails to teach the establishment of a security session effected through a handshake process by showing certificates exchanged between the security entities. Subramaniam teaches the establishment of a security session effected through a handshake process between security entities during which each application entity involved is required to show by attribute certificates that it possesses certain attributes required of it by the other application entity (Subramaniam, column 12 lines 19-46). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Subramaniam's method of using certificates for authentication because it offers the advantage of providing a method for a client to have convenient, efficient, and secure access to data stored within a secure network (Subramaniam, column 3 lines 1-6).

16. With regards to claims 4-5 and 8, Redlich as described above, fails to teach a remote broker system running a broker application that fronts for a target application entity. Subramaniam teaches a remote broker system running a broker application that fronts for a target application entity (Subramaniam, column 6 lines 61-64), the security entity being initially operative to seek to establish a security session with the broker application as the target application entity requiring of the broker application attributes considered by the local application entity as appropriate for the target application (Subramaniam, column 10 lines 36-62), the broker application responding by causing its associated security entity to return as part of its handshake with the security entity of the local application an indication that the broker application is a relay for the target application entity (Subramaniam, column 10 lines 36-62), the local application entity being operative to decide whether to request a tunnel be set up through the broker system by the tunneling mechanism and if so what requirements must now be met by the broker application (Subramaniam, column 10 line 62 – column 11 line 2). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Subramaniam's broker application because it offers the advantage of providing secure access to a secure intranet (Subramaniam, column 3 lines 11-18) through a broker that is versatile depending on the security needs of the local application entity (Subramaniam, column 3 line 52 – column 4 line 4).

17. With regards to claim 7, Redlich teaches a transport entity for providing transport services (Redlich, column 25 lines 3-7 and lines 29-31), a security entity logically positioned above the transport entity and operative to set up secure communications



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sessions with peer security entities in other systems for the passing of application messages in PDU's (Redlich, column 25 lines 54-59), the security entity including a tunneling mechanism for establishing a tunnel through an access-controlling intermediate system whereby to enable the local application entity to exchange application messages securely with a remote application entity on another system reachable via the intermediate system (Redlich, Figures 9 and 11, column 25 lines 19-42, column 26 lines 1-11), the tunneling mechanism establishing this tunnel by first setting up a first security session with the intermediate system and then a nested second security session with another system with PDUs associated with the second session being encapsulated within PDUs associated with the first session (Redlich, column 25 line 54 column 26 line 11) and being extracted by the intermediate system for sending to another system (Redlich, column 21 lines 42-57), and each PDU having a message-type field by which the security entity in the intermediate system can determine whether a PDU it receives encapsulates a PDU to be extracted and sent on (Redlich, column 21 lines 22-33, column 25 lines 27-32). Redlich fails to teach the establishment of a security session effected through a handshake process by showing certificates exchanged between the security entities. Subramaniam teaches the establishment of a security session effected through a handshake process between security entities during which each application entity involved is required to show by attribute certificates that it possesses certain attributes required of it by the other application entity (Subramaniam, column 12 lines 19-46). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize

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Subramaniam's method of using certificates for authentication because it offers the advantage of providing a method for a client to have convenient, efficient, and secure access to data stored within a secure network (Subramaniam, column 3 lines 1-6).

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Redlich Patent No 6,591,306 in view of Brueckheimer et al US Patent No 6,574,224. Redlich, as modified and described above, fails to teach the tunneling mechanism capable of setting up multiply nested security sessions. Brueckheimer discloses a system for processing communications traffic in which he teaches a tunneling mechanism capable of setting up multiply nested security sessions through a corresponding number of intermediate systems (Brueckheimer, column 6 lines 41-46). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Brueckheimer's method of nesting security sessions across multiple intermediate systems because it offers the advantage helping reduce latency by providing a method of establishing tunnels across a wide variety systems in an integrated network (Brueckheimer, column 1 lines 8-26 and column 2 lines 3-40).

### ***Conclusion***

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L Nalven whose telephone number is 571 272

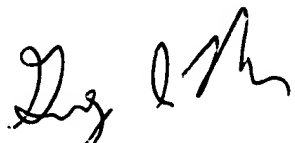
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3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on 571 272 3838. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Nalven



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